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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/836,829	04/17/2001	Ken-Ichi Toya	SKT-102-A	9976
21828	7590	11/05/2003	EXAMINER	
CARRIER BLACKMAN AND ASSOCIATES			TRINH, TAN H	
24101 NOVI ROAD			ART UNIT	
SUITE 100			PAPER NUMBER	
NOVI, MI 48375			2684	

DATE MAILED: 11/05/2003

*Handwritten signature and number 3*

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/836,829

Applicant(s)

TOYA, KEN-ICHI

Examiner

TAN TRINH

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 17 April 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-3 and 6-13 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## **DETAILED ACTION**

### ***Allowable Subject Matter***

1. Claims 4 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Reasons for allowance***

2. The following is a statement of reasons for the indication of allowable subject matter:

The reference of Hatano (U.S. Patent No. 5,355,511) teaches the position signal including an identification code of the portable communication terminals (see fig. 1, and col. 2, lines 43-col. 3, lines 29). However, the Itoh, Hatano and the prior art of record fails to teach, the position signal including an identification code of the portable communication terminals and a test pattern; the mobile repeater stations include a means for transmitting a repeated position signal to the communication satellite stations by adding a self identification code to the position signal received from the portable communication terminals; and the communication satellite stations include a means for selecting one of the mobile repeater stations which transmits the repeated position signal including the test pattern having a highest quality to be a mobile repeater station for the portable communication terminals, as cited in claims 4-5.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-3, 6-7 and 12-13, are rejected under 35 U.S.C. 102(b) as being anticipated by Itoh (U.S. Patent No. 5,490,284).

Regarding claim 1, Itoh teaches the land mobile-satellite communication system (see fig. 1) comprising: at least one communication satellite station (see fig. 1); a plurality of portable communication terminals for communicating with each other through a communication link to be formed to include at least one communication satellite station (see fig. 1) ; and a plurality of mobile repeater stations mounted on mobiles located on the earth for repeating a communication in the communication link formed between the portable communication terminals and including at least one communication satellite station (see fig. 1, and col. 1, lines 12-39 and col. 2, lines 12-29). Since Itoh teaches this is a mobile satellite communication system and communication any where in the world (see col. 5, lines 15-20) so that is inherency teaching the plurality of mobile repeater stations.

Regarding claim 2, Itoh teaches the mobile base station with antenna 61 for communication with satellite (see fig. 6 item 61, since the mobile communication or cellular communications only communication with low earth communication satellites) so that it is

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inherency of the plurality of the communication satellite stations respectively mounted on a plurality of low earth communication satellites and each the station including a means for communicating with other the stations through inter-satellite links (see fig. 5, col. 5, lines 39-44).

Regarding claims 3 and 13, Itoh teaches wherein the mobile repeater stations include a means for communicating with the communication satellite stations by using a carrier wave of higher frequency than a frequency of a carrier wave to be used for communicating with the portable communication terminals (see fig. 5, col. 5, lines 28-38, since the link to satellite communication stations is higher frequency then the link to portable communication terminals).

Regarding claim 6, Itoh teaches wherein the portable communication terminals include a means for communicating with the mobile repeater stations as well as with conventional land mobile communication systems (see fig. 1, col. 1, lines 12-24).

Regarding claim 7, Itoh teaches wherein the mobile repeater stations include a means for converting at least one of frequency and modulation for communication (see col. 5, lines 28-37). by changing software to allow communication with conventional land mobile communication systems; Since Itoh teaches the mobile repeater stations with mobile digital communication (see col. 1, lines 9-10), when is converting the frequency, it is automatically converting control by the software, so that is inherency teaching on the by changing software to allow communication with conventional land mobile communication systems .

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Regarding claim 12, Itoh teaches wherein the mobile repeater stations include a means for responding to a request from the communication satellite stations and / or portable communication terminals and for functioning as providers (see col. 5, lines 8-20 and col. 5, lines 45-48).

*Claim Rejections - 35 USC § 103*

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 8-9 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Itoh (U.S. Patent No. 5,490,284) in view of Macridis (U.S. Pub. No. 20030032429).

Regarding claim 10, Itoh fails to teach the communication satellite stations include a means for functioning as a Peering points or Proxies to provide accessibility to conventional land mobile telephone systems or Internet.

However, Macridis teaches the communication satellite stations include a means for functioning as a Peering points or Proxies to provide accessibility to conventional land mobile telephone systems or Internet (see fig. 1 and abstract lines 1-9).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify Itoh system and the teaching of Macridis on the Internet thereto in order to provide user to use the Internet on anywhere is easier.

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Regarding claim 11, Itoh teaches the data signal link from mobile base station 4 forward to earth station 2, relayed by satellite station 1, the data received and retransmit (see col. 5, lines 39-43), that is obvious to the storing data received from the portable communication terminals and for functioning as servers.

Regarding claims 8 and 9, the communication satellite stations include a means for transmitting information about their own position; and the mobile repeater stations include means for aiming an antenna beam thereof at the communication satellites according to received information about the position of the communication satellites and a detected position of the mobile repeater stations. This is a well known in the art, the mobile repeater stations or any satellite communication systems to communication with the satellite stations must aiming an antenna beam at the satellites station.

### *Conclusion*

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hatano (U.S. Patent No. 5,355,511) discloses position monitoring for communicable and uncommunicable mobile station.

Karabinis (U.S. Patent No. 5,937,332) discloses satellite telecommunications repeaters and retransmission method.

Fukutomi (U.S. Patent No. 5,842,132) discloses mobile telecommunication method and system.

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8. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314, (for Technology Center 2600 only)**

*Hand-delivered responses should be brought to Crystal Park II,  
2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).*

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Trinh whose telephone number is (703) 305-5622. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung, can be reached at (703) 308-7745.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.

Tan H. Trinh  
Art Unit 2684  
October 30, 2003

